

## **REMARKS**

The following are applicant's response to issues raised in the Office Action dated 10/04/2002. Applicants respectfully request entry of this amendment in order to move the instant application toward allowance or alternatively, to place the application in better form for appeal. A power or attorney and small entity statement is enclosed.

### **Rejection under 35 USC 112**

Claims 1, 5, 14 and 17 were rejected under 35 USC 112. Claims 1, 5, 14 and 17 have been amended to correct the grammar and antecedent basis issues. Withdrawal of the 112 rejection is respectfully requested.

### **Rejection under 35 USC 103**

Claims 1,2 8 and 9 were rejected under 35 USC 103 as being unpatentable over the cited Anderson reference.

Anderson discloses a leveling valve for an air spring. The valve is mounted to a vehicle chassis and is turned on and off by a lever attached to the axle. The valve adjust the air spring automatically to keep the vehicle level. The device of Anderson is of the prior art and is not adjustable by the vehicle operator.

Anderson does not teach, disclose or suggest as in amended claim 1, an actuator assembly that has a rail attached to a cross member and an actuator attached to the rail. The actuator moves the air valve to admit or release air from the air bag so as to adjust the ride firmness of the vehicle. A control switch is connected to the

actuator to allow the vehicle operator to control the actuator. The operator of the vehicle can therefore raise or lower the vehicle and adjust the firmness of the ride using the control switch to move the actuator.

In contrast, the cited Anderson reference does not have a control switch or an actuator and does not allow a vehicle operator to control the amount of air in the air bag. In Anderson, reference number 45 are bolts to hold valve 10. No actuator is present. The amount of air in the air bag of Anderson is pre-determined by the length of linkage 4.

As the court of Appeals for the Federal Circuit has set forth, even if a prior art reference could be modified to construct an applicant's invention, the modification is not obvious unless there is a suggestion in the prior art. *In re Laskowski*, 10 USPQ2d 1397, 1398 (Fed. Cir. 1989). There is no suggestion to modify Anderson to include a control switch operable by a vehicle operator and connected to an actuator.

Dependent claims 2-6 and 8 depend from independent claim 1 and are allowable therewith.

Withdrawal of the 103 rejection is respectfully requested.

Anderson does not teach, disclose or suggest as in amended claim 9, an actuator assembly that includes a cross member of the vehicle and a rail having a lip attached to the cross member. An actuator is attached to the rail. An actuator arm is attached to the rail and has a first end attached to the actuator. The actuator is operable to move the arm. A mounting plate has an end attached to an air valve and

another end attached to a second end of the actuator arm. The actuator moves the air valve between a first position in which air is admitted to an air bag mounted in the vehicle and a second position in which air is released from the air bag. A rod has an end in contact with an axle of the vehicle and another end connected to the air valve. A control switch is connected to the actuator to allow the vehicle operator to move the actuator.

Specifically, the present invention has a control switch that is connected to the actuator. The control switch allows the operator of the vehicle to add or release air from the air bag by moving the actuator that moves the valve. Once the actuator is in position the ride is maintained at the same firmness or position by rod 190.

In contrast, the cited Anderson reference does not have a control switch or an actuator and does not allow a vehicle operator to control the amount of air in the air bag. In Anderson, reference numbers 45 are bolts not an actuator. The amount of air in the air bag of Anderson is pre-determined by the length of linkage 4.

As the court of Appeals for the Federal Circuit has set forth, even if a prior art reference could be modified to construct an applicant's invention, the modification is not obvious unless there is a suggestion in the prior art. *In re Laskowski*, 10 USPQ2d 1397, 1398 (Fed. Cir. 1989). There is no suggestion to modify Anderson to include a control switch operable by a vehicle operator and connected to an actuator.

Dependent claims 10-15 depend from independent claim 9 and are allowable therewith.

Withdrawal of the 103 rejection is respectfully requested.

**Allowable Subject Matter**

Applicants gratefully acknowledge the allowance of claims 3-7 and 10-18.

**Conclusion:**

The Examiner's attention to the patent application is appreciated. Claims 1-6, 8-15 and 17-18 are now believed to be in condition for allowance. A section entitled "Version with markings to show changes made", is attached indicating the changes made in the amendment.

Respectfully submitted,



Mark P. Bourgeois  
Reg. No. 37,782

## Version With Markings to Show changes Made

Claims 7 and 16 have been deleted.

The following claims have been amended:

1. (amended) An actuator assembly for moving an air valve by a vehicle operator to admit or release air to an air spring mounted in a vehicle, the air valve pneumatically ~~communicated~~ communicating with the air spring, the air valve having a rod in contact with an axle of the vehicle, the vehicle having a cross member, the assembly comprising:
  - a) a rail attached to the cross member; and
  - b) an actuator attached to the rail, the actuator operable to move the air valve to admit or release air from the air bag so as to adjust the ride firmness of the vehicle; and
  - c) a control switch connected to the actuator to allow the vehicle operator to control the actuator.
3. (amended) The actuator assembly according to claim 2, wherein the rail has a channel therein, a first ball bearing located within the channel, the first ball bearing having a stud extending from the first ball bearing through the actuator arm and attached to the actuator shaft.

5. (amended) The actuator assembly according to claim 2 3, wherein a second ball bearing is located within the channel spaced apart from the ~~other~~ first ball bearing, the second ball bearing having a stud attached to the actuator arm.

9. (amended) An actuator assembly for a vehicle, the actuator assembly adapted to be controlled by a vehicle operator, the actuator assembly comprising:

- a) a cross member of the vehicle;
- b) a rail having a lip attached to the cross member;
- c)—an actuator attached to the rail;
- d) an actuator arm slidably attached to the rail and having a first end attached to the actuator, the actuator operable to linearly move the arm; and
- e) a mounting plate having an end attached to an air valve and another end attached to a second end of the actuator arm, the actuator operable to move the air valve between a first position in which air is admitted to an air bag mounted in a the vehicle and a second position in which air is released from the air bag;
- f) an air hose pneumatically communicating the air valve and the air bag; and
- g) a rod having an end in contact with an axle of the vehicle and another end connected to the air valve; and
- h) a control switch connected to the actuator to allow the vehicle operator to move the actuator.

10. (amended) The actuator assembly according to claim 9, further comprising:
- a) a channel located within the rail;
  - b) a first ball bearing located within the channel and retained by the lip; and
  - c) a stud extending from the first ball bearing through the actuator arm and attached to an actuator shaft.

14. (amended) The actuator assembly according to claim 9, 10 wherein a second ball bearing is located within the channel spaced apart from the ~~ether~~ first ball bearing, the second ball bearing having a stud attached to the actuator arm.

17. (amended) An actuator assembly for moving an air valve between a first position in which air is admitted to an air bag mounted in a vehicle and a second position in which air is released from the air bag, the air valve pneumatically ~~communicated~~  
communicating with the air bag, the air valve having a rod in contact with an axle of the vehicle, the assembly comprising:

- a) a rail attached to a cross member of the vehicle;
- b) an actuator attached to the rail, the actuator having a movable shaft;
- c) an actuator arm attached to the rail and having a first end attached to the actuator, the actuator operable to linearly move the arm;
- d) a ball bearing movably retained within the channel, the ball bearing having a stud extending from the ball bearing through the actuator arm and attached to the actuator shaft; and
- e) a mounting plate having an end attached to the air valve and another end attached to a second end of the actuator arm, the actuator operable to move the air valve between the first and second positions so as to adjust the ride firmness of the vehicle.